Game Engines as an Assessment Tool for Advanced Distributed Learning Applications

The Problem

- Combating cliches
  - Practice does not make perfect
    - Perfect practice makes perfect
    - Imperfect practice enforces bad habits
  - Make mistakes in live training, not in battle
    - Why not eliminate mistakes prior to live training
    - Make live training more effective

The Problem

- Military principles
  - Core doctrine
  - Taught primarily via live training
    - Lessons learned from pedagogy studies show that no pre-brief/ instruction makes live training less effective
  - Simulated today via immersive sims
  - No established distance learning mechanism

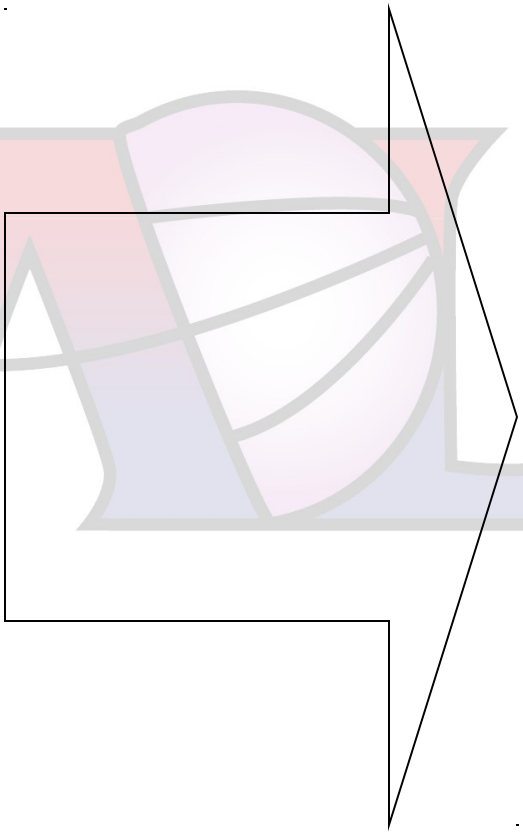
The Problem

- Traditional web-based courseware assessment is lacking
  - Not engaging
  - Not sufficient to teach some principles
- PC games are lacking
  - Do not assess students against principles
  - Can offer negative training
- Intelligent tutoring systems do not stand alone

The Solution

Precursor to Live training:

- **Web-based environment**
- **Principle-oriented courseware**
- **Game engine-based simulation for assessment**
- **Intelligent tutoring system to assess,**



- **More effective live training**

Collaborative Training

- Complex scenarios
- Can set it up for beginner or advanced student
- Can do top 10 worst scenarios at once (terrorists, civilians in the mix, etc.)
- Teams that are geographically distant and functionally disparate can train together

Current Efforts

- STO: Training Tools for Web-based Collaborative Environments
- OSD SBIR, Reusable 3D Components for Virtual Environments, Phase II is getting started
- DA SBIR, Embedded C4I Training Using Courseware and a Game Engine
- UCF M & S Infrastructure Congressional Plus-Up

Wrap-Up

- Questions??
- Comments??
- Criticisms??
- Emotional outbursts??